UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/523,467	03/10/2000	David Masao Atoji	RAL9-99-0157	5010

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EXAMINER
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ART UNIT	PAPER NUMBER
2667	

DATE MAILED: 02/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01 December 2003</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-17</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-17</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 1-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Hedlund (US

5,136,584).

Hedlund discloses a system comprising the following features: regarding claim 1, as

depicted in Figs. 1, 3, 5, a storage unit (221, 260), with storage capacity greater than the storage

capacity of a one byte register, for storing the variable length packet (column 5, lines 32-35,

column 6, lines 49-54); a storage control block (206, 219, 220) for storing segmenting

information; a bus connected to an external interface (219) to request and receive

acknowledgment of segmenting information availability; a first input data bus connected to the

storage control block (417) to read the segmenting information; a second input data bus

connected to the storage unit (221, 260) to read the variable length data packet; a multiplexer

(418) having two the input data buses and an output bus; a counter pointing (407) to the next

address in the word of the packet to be read in the storage unit (221, 260); a finite state machine

(416), for each cell to be built, requesting and receiving acknowledgment of segmenting

information availability, repetitively activating the multiplexer (418) with storage unit data and

segmenting information data according to a finite cell pattern and sending cell data on the output

bus to the cell output (204) while incrementing the counter (407) until the output cell is output;

the finite state machine (416) repetitively outputting cells according to the cell pattern until all

the packet words are read. See column 5-10.

Regarding claim 2, Hedlund discloses the following features: two buses connected to a

storage unit controller (206, 405) controlling the storage unit (221, 260), one bus being

connected to the counter (407) and sending the address to read in the storage unit and one bus

connected to the finite state machine (416) to send request for data, availability on the

multiplexer (48) first input bus reading and to receive acknowledgment for storage unit data

availability on the multiplexer (48) first input bus. See column 5-10.

Regarding claim 3, Hedlund discloses the following features: as depicted in Figs. 2 and

3, wherein the control block comprises the packet header and the cell header having respectively

6 unit and 10 unit length, the finite state machine activating the multiplexer with the headers and

storage unit data to build the cells according to the cell pattern. See column 5-10.

Regarding claim 4, Hedlund discloses the following features: as depicted in Fig. 2, the

control block comprises a data field having an even length to be replaced in the packet so that the

finite state machine activates the multiplexer with the data field and storage unit data to build the

cells with the replaced field according to the cell pattern. See column 5-10.

Regarding claim 5, Hedlund discloses the following features: as depicted in Fig. 2, the

control block comprises a data field having an even length to be inserted in the packet, so that the

finite state machine activates the multiplexer with the data field and storage unit data to build the

cells with the inserted field according to a cell pattern with a different cell order than the cell

pattern used when no data field is inserted in the packet. See column 5-10.

Regarding claim 6, Hedlund discloses the following features: in Fig. 5, wherein the

counter (407) is read from the segmenting information at each new cell and incremented by the

finite state machine (416), modulo the storage unit word length, of the length of the cell data sent

on the output bus. See column 5-10.

Regarding claim 7, Hedlund discloses the following features: wherein the storage unit

word length is 16 bytes, the multiplexer output bus is a 4 byte bus and the cell fixed length is 64

bytes, the output cell being filled by 16 clock cycles sequencing the finite state machine, with 4

bytes at each clock cycle. See column 5-10.

Claims 8-17 discloses the similar limitations as claims 1-7. Therefore, claims 8-17 are

rejected by the same reasons above.

Response to Arguments

3.   Applicant's arguments filed 12/1/03 have been fully considered but they are not

persuasive.

On last paragraph of page 17 to page 18, Applicant argues that the reference of Hedlund

does not show a first storage unit sized as set forth in claims 1, 8 and 15. Examiner respectfully

disagrees with this argument. Hedlund discloses that the buffer memory 221, 260 in Figs. 1 and

3 are for storing the incoming variable size frames before segmented in Data Segmenter 205,

wherein the size of the buffer memory is larger than one byte. See column 5, lines 32-35 and

column 6, lines 49-54. Therefore, it is respectfully submitted that the reference of Hedlund does

anticipate the claimed invention.

On page 18, second paragraph, Applicant argues that the Hedlund does not show a frame process component, creating queues of packets going to the same destination. Examiner respectfully disagrees with this argument. Hedlund discloses that the buffer memory 221 is for storing the incoming variable frames; the ADDR. CNTR 407 and Address MUX 405 for generating destination address and control information such that the frames go to the same destination. See column 8, line 39 to column 10, line 54. Therefore, it is respectfully submitted that the reference of Hedlund does anticipate the claimed invention.

Conclusion

4.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.
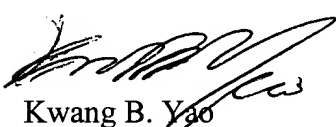
5.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kwang B. Yao whose telephone number is 703-308-7583. The

examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chi H Pham can be reached on 703-305-4378. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KWANG BIN YAO
PRIMARY EXAMINER

Kwang B. Yao
Feb. 5, 2004